SERVICE MANUAL & PARTS LIST (without price)

LABEL PRINTER
KL-7000(LX-271)

MAR. 1995

KL-7000(BK)

KL-7000(GY)

INDEX

CASIO®

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SPECIFICATIONS

Input

Keyboard layout :	Typewriter (QWERTY)

Character Types

Alpha (English and other languages) :	151
Numbers :	10
Symbols :	153
Illustrations :	50

Display

Type :	48 X 32-dot liquid crystal display
Number of columns :	8
Character matrix :	16 X 16-dot

Printing

Type :	64-dot thermal transfer
Speed :	Approximately 6.76 mm / second
Width :	4 mm (6 mm tape) or 8 mm (other tape)
Character matrix :	24 X 24-dot (normal) ; 16 X 16 dot(s)
Character fonts :	Serif, sans-serif
Character styles :	Normal, outline, shadow, raised
Character effects :	Underline, box
Character sizes :	1X1, 1X2, 1X3, 2X1, 2X2, 2X3, L2X3, S1X1, S1X2, S1X3, S2X1, S2X2, S2X3
Character pitch :	None (0 mm), narrow (0.5 mm), wide (1.0 mm)
Number of line :	1 or 2 (6 mm tape) ; 1 to 4 (other tapes)

Memory

Text :	Up to approximately 326 characters

General

Main power supply :	Eight AA-size batteries or optional AD-A95100 AC adaptor
Memory backup battery :	Once CR2032 lithium battery life = approximately one year
Power consumption :	9 W
Auto power off :	Approximately six minutes after last key operation
Dimensions :	48.8H X 174W X 224.8mmD
Weight :	513 g (Including batteries)
Ambient temperature :	10 °C ~ 35 °C

Threshold of voltage detection

Low battery :	Vbat = 6.2V ± 2.5%
Forced power off :	Vbat = 5.0V ± 5.0%

Note : Vbat = power source (Batteries or AC adaptor)

CLEANING THE PRINTER HEAD AND ROLLER

1 : Make sure to turn the power switch off.
2 : Open the tape cartridge compartment cover.
3 : Remove the tape cartridge.
4 : Use a cotton swab dipped in alcohol to clean the printer head and roller.
5 : Replace the tape cartridge and close the compartment cover.

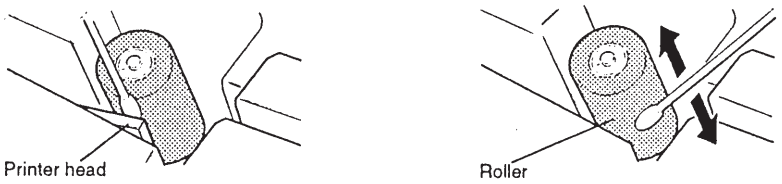


Figure-1

RESET OPERATION

If you experience serious malfunction of the unit or if operation fails completely, try performing the following operation to reset the unit.

1 : Turn the power switch off.
2 : Open the tape cartridge compartment cover and remove the tape cartridge.
3 : Press the reset switch inside the tape cartridge compartment to reset the unit.

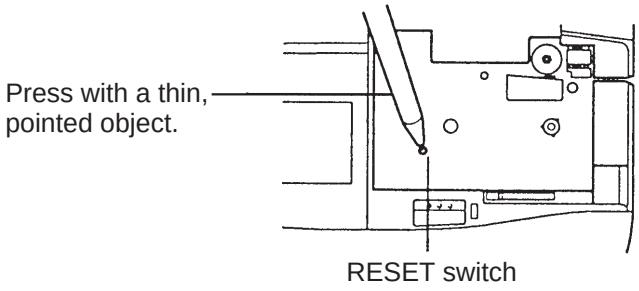


Figure-2

NOTE : 1.Take care not to press the RESET switch too hard with pointed object. Doing so can cause malfunction.
2.Never press the RESET switch expect when the unit fails to operate correctly.
3.Data stored in memory is not cleared when you press the RESET switch.

BLOCK DIAGRAM

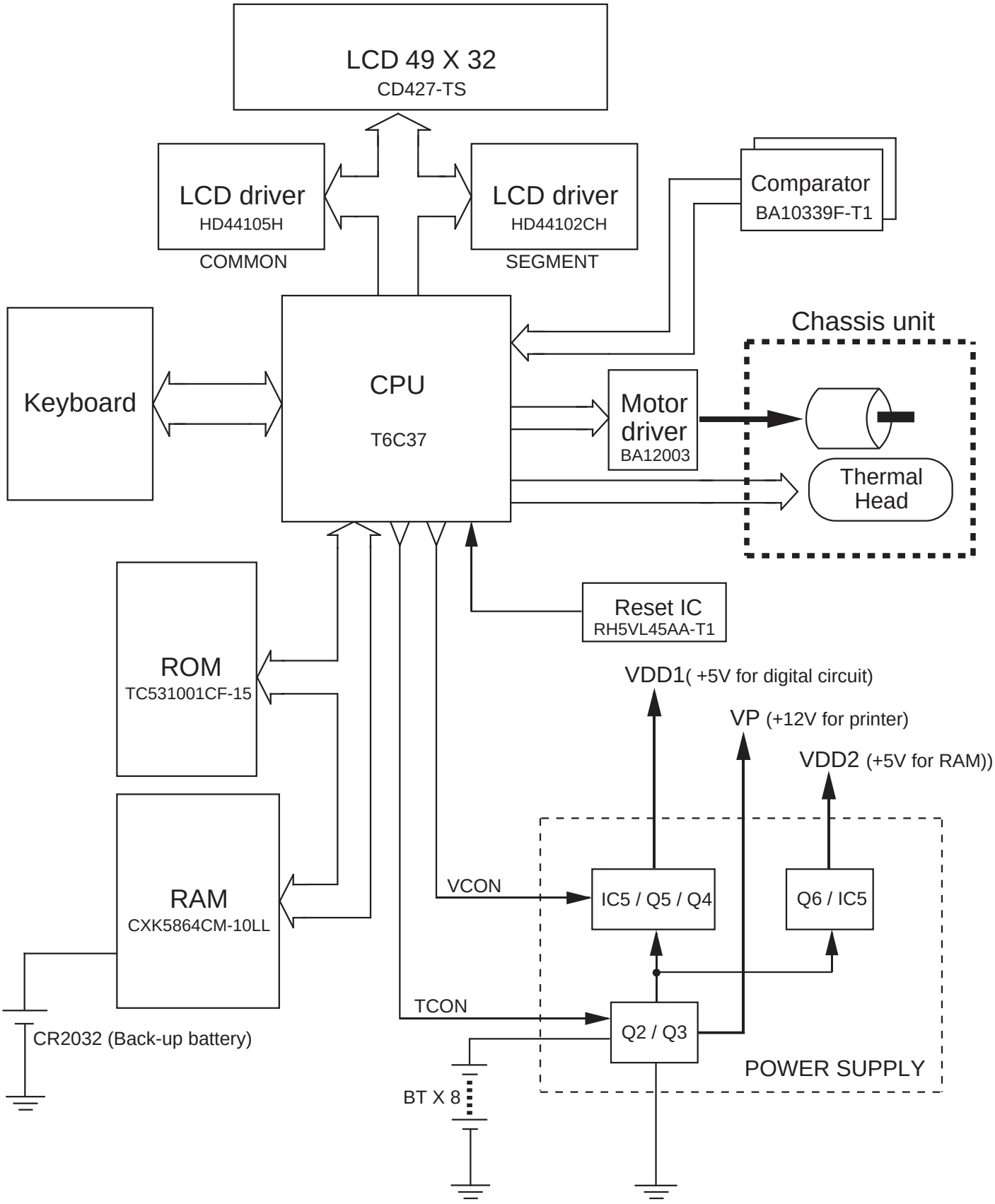


Figure-3

PRECAUTIONS

To prevent damage of the thermal head caused by static electricity when assembling the chassis ass'y into the unit, the following steps must be followed;

1 : Turn the power switch off.
2 : Discharge the capacitor C18(2200μF) on the PCB L271-1.
3 : Connect the FPC of chassis ass'y into a connector CN301 of PCB L271-2.
4 : Assemble the chassis ass'y.
5 : Turn the power switch on.

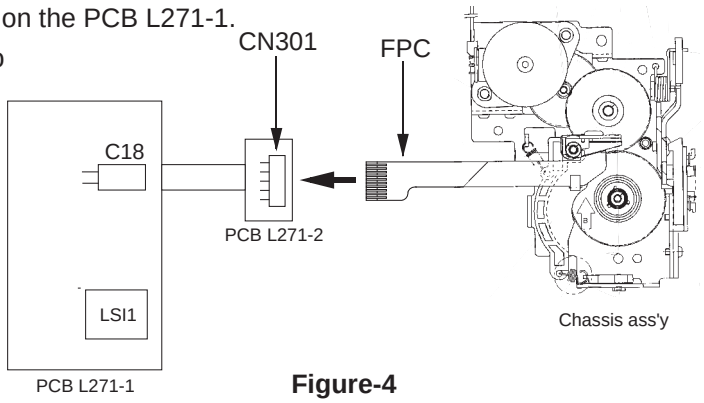


Figure-4

ADJUSTMENT

Adjustment of low battery detection circuit

To adjust the threshold voltage of the low battery detection circuit, the following steps must be followed;

1 : Apply 6.2V + 0.1V / -0V to the battery terminals.
2 : Ground check pads CP45 and CP46.
3 : Adjust a pot VR1 so that the voltage between CP1 and CP2 is 0V ± 10 mV.

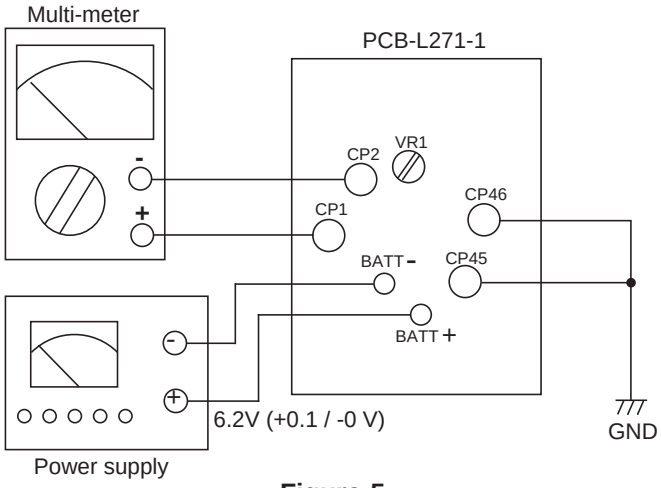


Figure-5

Setting the thermal head rank

Set the thermal head rank with pads RNK1 and RNK2 on the PCB L271-1 according to the following conditions when replacing the chassis ass'y or thermal head. The head rank is indicated on FPC as following figure-6.

Head rank A : RNK1=ON, RNK2=OFF
Head rank B : RNK1=OFF, RNK2=OFF
Head rank C : RNK1=ON, RNK2=ON
Head rank D : RNK1=OFF, RNK2=ON

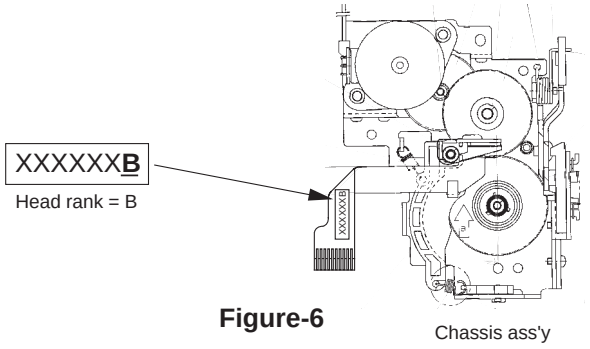


Figure-6

MEASUREMENT

Measure each value according to the following table and figure, if necessary.

Measurement point		Voltage / Current	Condition
VDD1	Min.	4.72V	IDD1 = 30 mA
	Max.	5.4V	
VDD2	Min.	4.72v	IDD2 = 30 mA
	Max.	5.4v	
VP	Min.	11.70V	IP = 300 mA
	Max.	12.24V	
Ibat	Typ.	25 mA	Turning power SW on.
(Displaying)	Max.	100 mA	
Ibat	Typ.	0.6A	When printing "CASIO COM..." at diagnostic program PRINT CHECK-1.
(Printing)	Max	0.7A	When printing " ! " at diagnostic program PRINT CHECK-1.
Ibu	Min.	----	Turning power SW off and disconnecting power
(Power off)	Max.	15 μA	source Vbat. Then supply +3V from CR2032.

Note : Ibat = Power source (Batteries or AC adaptor)
Ibu = Back-up battery (CR2032)
Vbat = 12V ± 2%)

Table-1

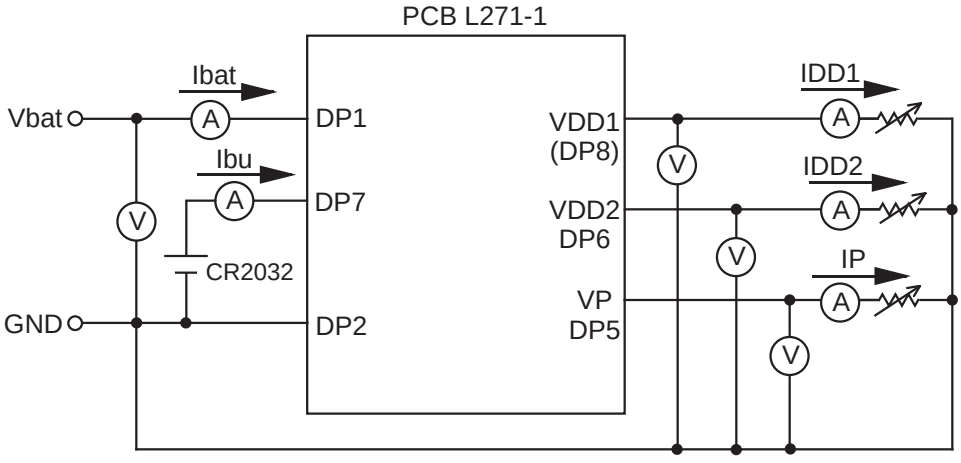


Figure-7

CIRCUIT DESCRIPTION

Setting the batteries or AC adaptor (see figure 8)

When setting the batteries or AC adaptor, the voltage VDD2 is always applied to RAM and CPU since Q6 and IC5 are turned on.

Power on sequence (see figure 8)

When the power switch is turned on, PON signal is being H (PON = VDD2). CPU knows to turn the power switch on, it provides H from VCON terminal to base of transistor Q5. Then both transistors Q5 and Q4 are turned on, the voltage VDD1 is applied to all devices.

Power off sequence (see figure 8)

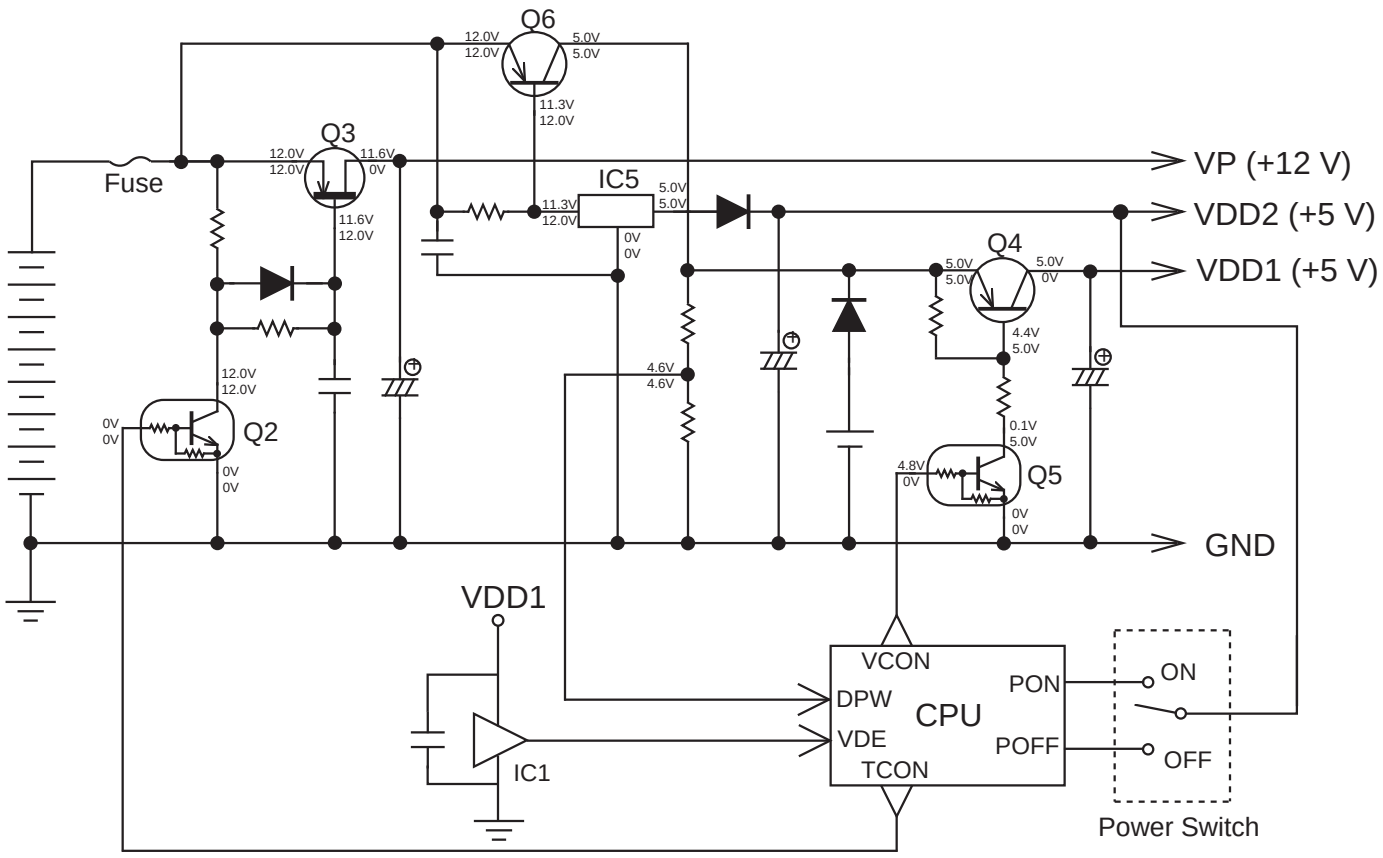
When the power switch is turned off, POFF signal is being H(POFF= VDD2). CPU knows to turn the power switch off, VCON signal and base of Q5 will be L. Then both transistors Q5 and Q4 are turned off, Q4 stops to supply the voltage VDD1.

Power down sequence (see figure 8)

If the voltage across the batteries lowers and the terminal DPW of CPU comes less than 4.5V, VCON signal is L. Then both transistors Q5 and Q4 are turned off, Q4 stops to provide the voltage VDD1.

Print sequence (see figure 8)

When the PRINT button is pressed, TCON signal is H. Then both transistors Q2 and Q3 are turned on, the voltage VP for printing will be 12V.



Note : The voltages around transistors mean as follows;
Upper figure : Power ON at no operation.
Lower figure : Power OFF.

Figure-8

LSI PIN FUNCTION

CPU (T6C37) : LSI1

No	Name	I / O	Function
1	RD	O	Read signal for memory devices
2	WR	O	Write signal for memory devices
3	VDD	I	+5V source
4~15, 17~21	A0~A11, EA12~EA16	O	Address bus
16	GND	I	Ground (0V) source
26	VDD	I	+5V source
27	RC1	O	Chip enable signal for ROM
29	RC3	O	Chip enable signal for RAM
31	RNK1	I	Thermal head rank setting
32	RNK2	I	Thermal head rank setting
33	PSTB	O	Strobe signal for thermal head
34	LTCH	O	Latch signal for thermal head
35	SO	O	Data
36	PCLK	O	Clock pulse for thermal head
37	VDD	I	+5V source
38	XIN	I	Main clock input
39	XOUT	O	Main clock output
40	GND	I	Ground (0V) source
41~44	MT1~MT4	O	Motor drive signal
45	TCON	O	Control signal for voltage VP
46~52	VCK0~VCK6	I	Voltage detecting signal for low battery
53	RSI	I	Reset delay input
54	RSO	O	Reset delay output
55	VDE	I	Reset signal input
56	VCON	O	Control signal for voltage VDD1
57	PON	I	Power on signal from power switch
58	POFF	I	Power off signal from power switch
59~66	KI0~KI7	I	Key input signal
67~75	KO0~KO8	O	Key common signal
79	DPW	I	Voltage detecting signal for forced power off
81	RX	---	Serial data input. Connected to VDD1
83~85	TAP1~TAP3	I	Tape cartridge selecting signal. Connected to GND
86	LCS	O	Chip enable signal for LCD driver
87	RSTL	O	Reset signal for LCD driver
88	CRES	I	Reset timing signal input. Connected to reset pad
89, 90	DSW, GND	---	Connected to GND
91	NBZ	O	Buzzer signal output
92	BZ	O	Buzzer signal output
93~100	CD0~CD7	I/O	data bus

Table-2

LCD driver (HD44105H) : LSI201

No	Name	I / O	Function
1~12, 41~60	X1~X32	O	LCD drive output
13	DL	I / O	I/O pin for 2 way shift register and shift data
14	GND		Ground
15, 16	FS1, FS2	I	Select frequency
17~19	DS1~DS3	I	Select display duty
20	C		Oscillator
21	R		Oscillator
22	CR		Oscillator
23	STB	I	Input pin for test use
24	SHL	I	2 way shift register, select shift direction
25	M/S	I	Master/slave switching M/S=H : master mode M/S= L : slave mode
26, 27	ø1, ø2	O	Output pin to HD44102CH operation clock. The frequency is half the frequency of the oscillator.
28	FRM	O	Display synchronize signal (frame signal)
29	VCC		+5V source
30, 32, 35	NC		Not used
31	M	I/O	LCD drive alternating signal
33	CL	I/O	Shift register shift clock Output at master Input at slave
34	DR	I/O	I/O pin for 2 way shift register and shift data
36	VEE		Power source for LCD drive circuit. 0~+5.5V
37~40	V1~V4		LCD drive level power V1, V2 : Selecting level V3, V4 : No selecting level

Table-3

LCD driver (HD44102CH) : LSI202

No	Name	I / O	Function
1~22, 24~40, 70~80	Y1~Y50	O	LCD drive output signal
23, 62	NC		Not used
41	VCC	I	+5V source
42	BS	I	Bus select BS=L : DB0~DB7 work at 8-bit BS=H : DB4~DB7 are only active a 4-bit. 8-bit data is split in two and accessed in order.
43	RST	I	Reset signal. Set RST signal to low level and display is turned off.
44~46	CS1~CS3	I	Chip select
47	E	I	Enable R/W=L : latches E fall DB0~DB7 R/W=H : E=H sends data to DB0~DB7
48	R/W	I	Read/Write R/W=H : Sends data to DB0~DB7 when E=H, CS2, 3=H R/W=L : Receive from DB0~DB7 when CS2,3=H or CS1=H
49	D/I	I	Data/Instruction D/I=H : Indicates that DB0~DB7 data is display data D/I=L : Indicates that DB0~DB7 data is display control data
50~57	DB0~DB7	I/O	Data bus
58	FRM	I	Display synchronize signal (frame signal) When FRM=H, the 5-bit display line counter is reset, and synchronizes the common signal and frame timing.
59	CL	I	Display synchronize signal. Synchronizes with the rise of the CL signal, and sends the liquid crystal signal for the display data.
60, 61	ø1, ø2		2 phase clock for internal operation
63	M	I	Alternating signal for LCD drive output
64	GND		Ground source
65	VEE		Power source for LCD. 0~+5V.
66~69	V1~V4		Level power for LCD drive. V1 / V2 : Selecting level. V3 / V4 : No selecting level.

Table-4

DIAGNOSTIC PROGRAM

Note : Make the reset operation after RAM check, because the RAM check break the data stored in RAM.

Check item	Operation	Display	Note
(BOOT)	Press ON while pressing keys, SET + RETURN + FUNCTION	0 ALL 7 VP 1 RAM 2 LCD 3 KEY 4 SW 5 PR1 6 PR2	Main menu
RAM CHECK (1 RAM)	1		Beep
	(After a few seconds)	RAM 64KOK ROM 1MOK XXXX	To return the main menu, press any key.
LCD CHECK (2 LCD)	2		Frame
	Any key		All dots
	Any key		Checker
	Any key		Reversed checker

Table-5(1/2)

Check item	Operation	Display	Note
KEY CHECK (3 KEY)	3	1	Press the key according to what is appeared on the LCD. Press any key after last key check to return the main menu.
RANK CHECK (4 SW)	4	RANK X	Check the rank of the thermal head employed in the unit. (RANK = A ~ D)
PRINT CHECK-1 (5 PR1)	5	NOW PRINTING	Refer to the following figure-7.
PRINT CHECK-2 (6 PR2)	6	NOW PRINTING	Refer to the following figure-8.
VP CHECK (7 VP)	7	Vp ON	TCON signal from CPU is H, voltage VP is applied to the thermal head and stepping motor.
ALL ITEM CHECK (0 ALL)	0		The 5 check items are proceeded automatically by pressing any key, according to the following order. RAM---LCD---KEY---SW---PR1

Table-5(2/2)

PR-1 (Normal printing result)

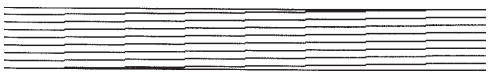


Figure-9

PR-2 (Normal printing result)

Figure-10

MESSAGES

Message	Meaning	Action
NO DATA!	There is no data stored in memory.	Store some data before trying to perform this operation.
NOT ENOUGH MEMORY!	There is not enough unused memory to perform the operation.	Reduce the size of the data you are trying to store or delete data already stored to make room for the new data.
NOW PRINTING	Printer is performing printing operation.	Wait for printing operation to end.
NOW PRINTING CUT THEN [SET]!	Printing is paused for a tape cut operation.	Cut the tape and then press SET to resume printing.
SAME NAME ALREADY USED!	The name you are using when storing data in memory is already used.	Use a different name or delete the data in memory this is under the same name.
TEXT DOES NOT FIT!	Text is too long to fit in the specified tape length.	Reduce the size of the characters or shorten the text.
TOO MANY LINES!	Text has too many lines to fit on tape.	Reduce the number of lines.
TOO MANY LINES TO FRAME!	Text has too many lines to fit into a frame.	Reduce the number of lines.
WHERE?	Unit is asking for the starting point of the operation you are performing.	Use ◄ and ► to move the cursor to the starting point and press SET to specify it.
CANNOT COMBINE!	Previously input text cannot be combined with new input text.	Perform the operation and input new text.
CANNOT USE 6 mm	Current operation cannot be performed using 6 mm tape.	Change to a different tape size.
CLEARS INPUT TEXT!	The operation you have selected will clear the text you previously input.	Proceed with the operation (and clear the text), or press ESC to abort without clearing anything.
DATA ERROR! RESET!	Memory data has become corrupted for some reason.	Reset the unit. Note that the reset operation deletes all data in memory.
INITIAL?	Memory initialization is required.	Initialize memory.
INPUT TEXT!	Unit is requesting input of text.	Input the text you want to print.
LOW BATTERY	Battery power is low.	Replace batteries or use AC adaptor.
MEMORY FULL!	Memory is full and data cannot be stored.	Delete data you no longer need and make room for new data.
OUT OF FORMAT RANGE!	Input text exceeds the range of the selected format.	Shorten text or use a different format.
ERROR!	The number of lines in the input text is greater than the number of lines in the format being specified.	Reduce the number of lines in the text or use a different format.
	There is a character size indicator inside the text for which a format is being specified.	Delete the character size indicator from the text before specifying a format.

Table-6

DISASSEMBLY PROCEDURE

1 : Remove the battery cover, batteries and ink ribbon cassette.

2 : Remove 8 screws holding the lower cabinet and take it off.

(Refer to figure-11)

3 : Re-solder 6 wires from Buzzer and battery terminals.

4 : Remove 4 screws(A) holding PCB L271-1 and take out the connector CN3 on PCB L271-1.

5 : Take out FPC of chassis ass'y from PCB L271-2 and remove 2 screws(B) holding the PCB L271-2.

6 : Remove 10 screws(C) holding PCB L271-E4, 2 screws(D) holding the LCD and take off them.

7 : Remove 3 screws(E) holding the chassis ass'y and take off the chassis ass'y.

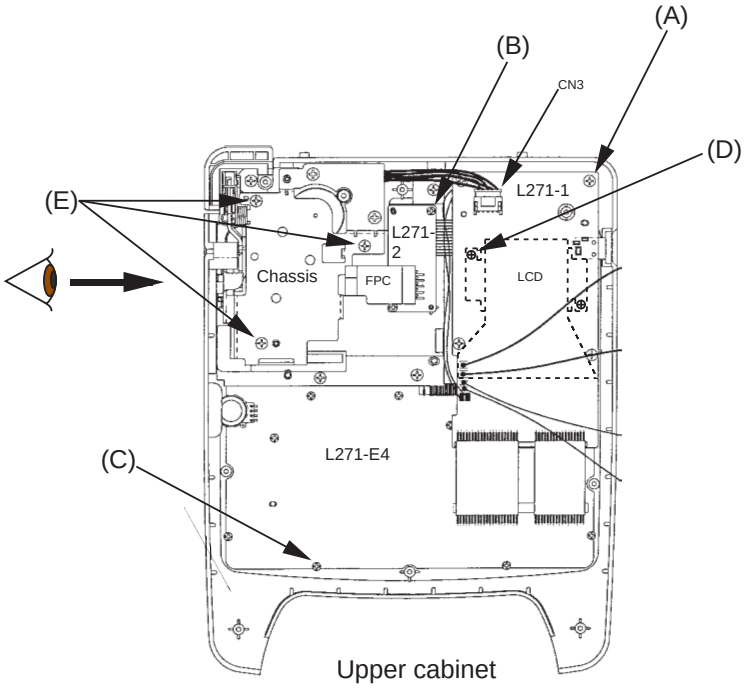


Figure-11

(Refer to figure-12)

8 : Remove a spring(X) and the tape fixing plate.

9 : Remove 2 screws(F) holding the scissors sub ass'y and a spring(Y).

10 : Take off the scissors sub ass'y.

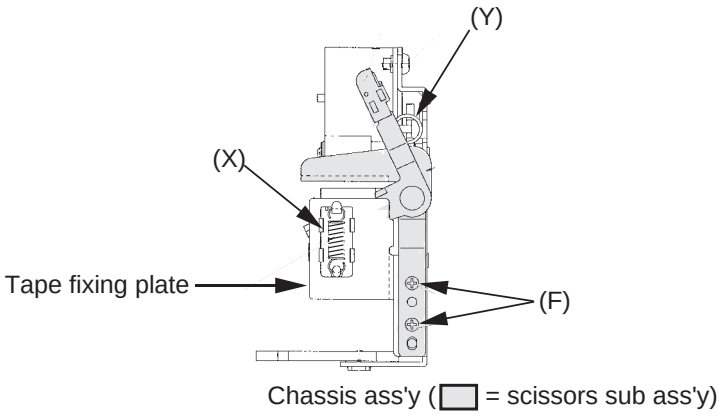
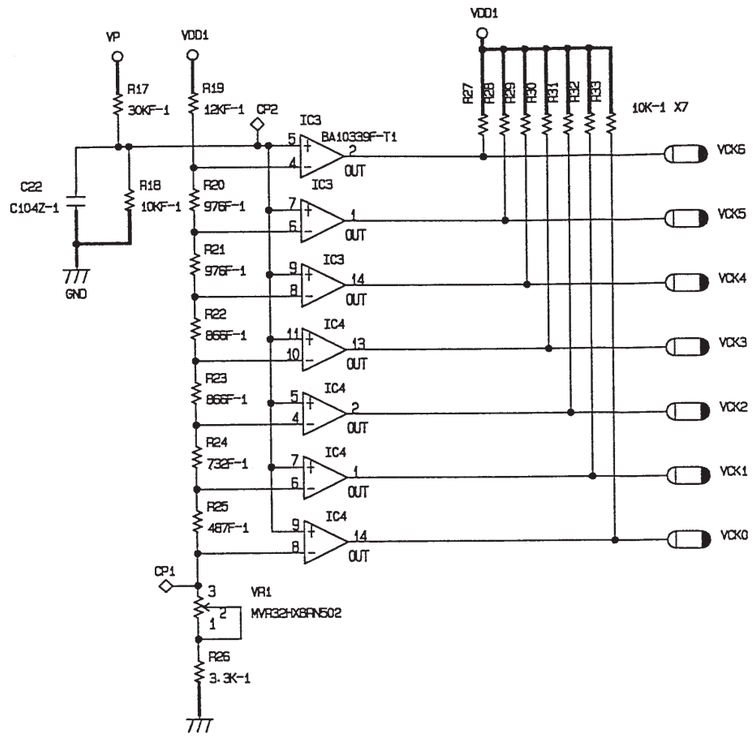
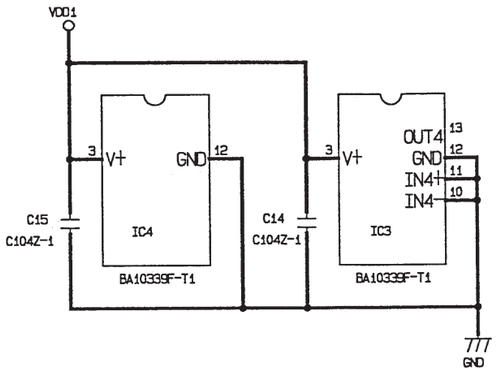
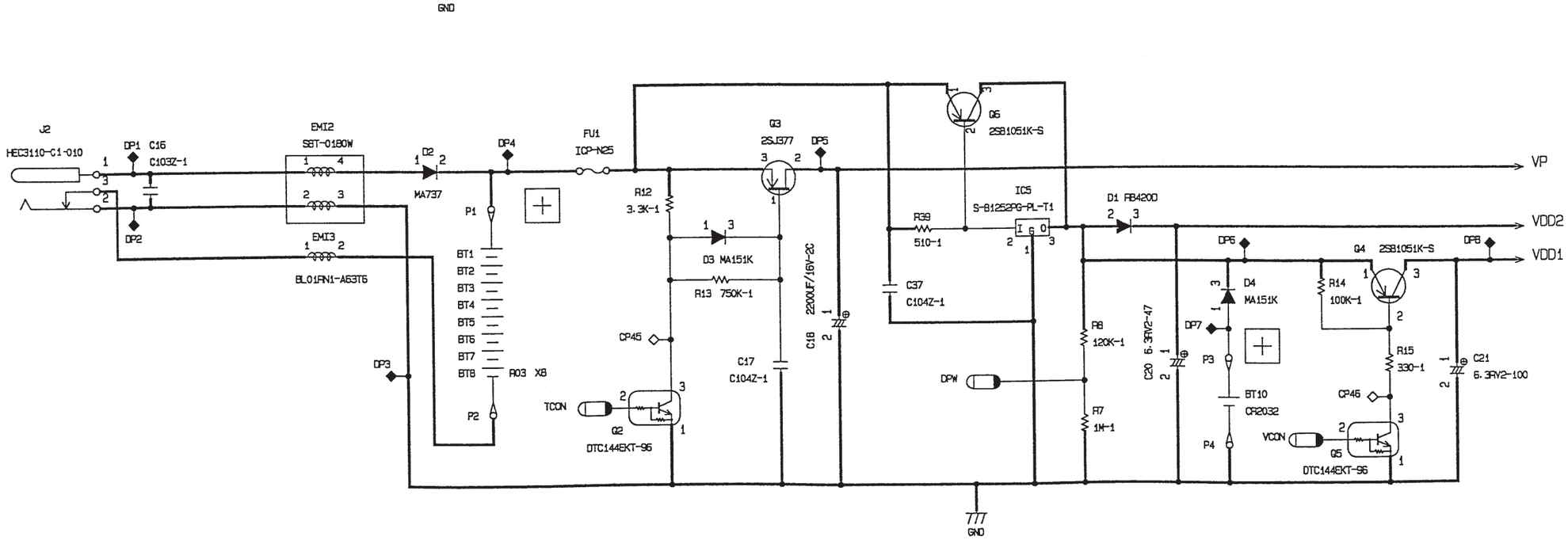


Figure-12

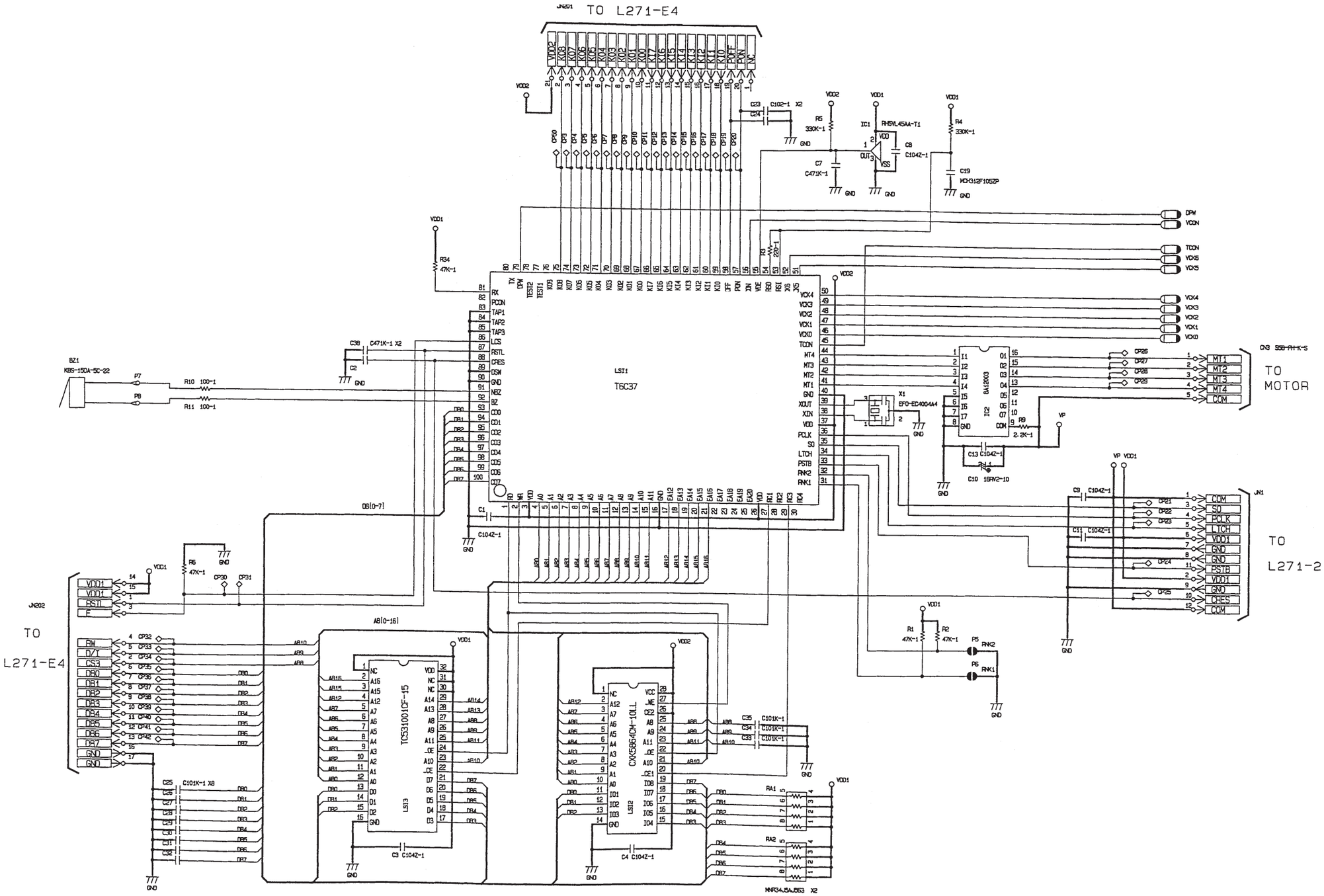
SCHEMATIC DIAGRAM
PCB L271-1 (1/2)



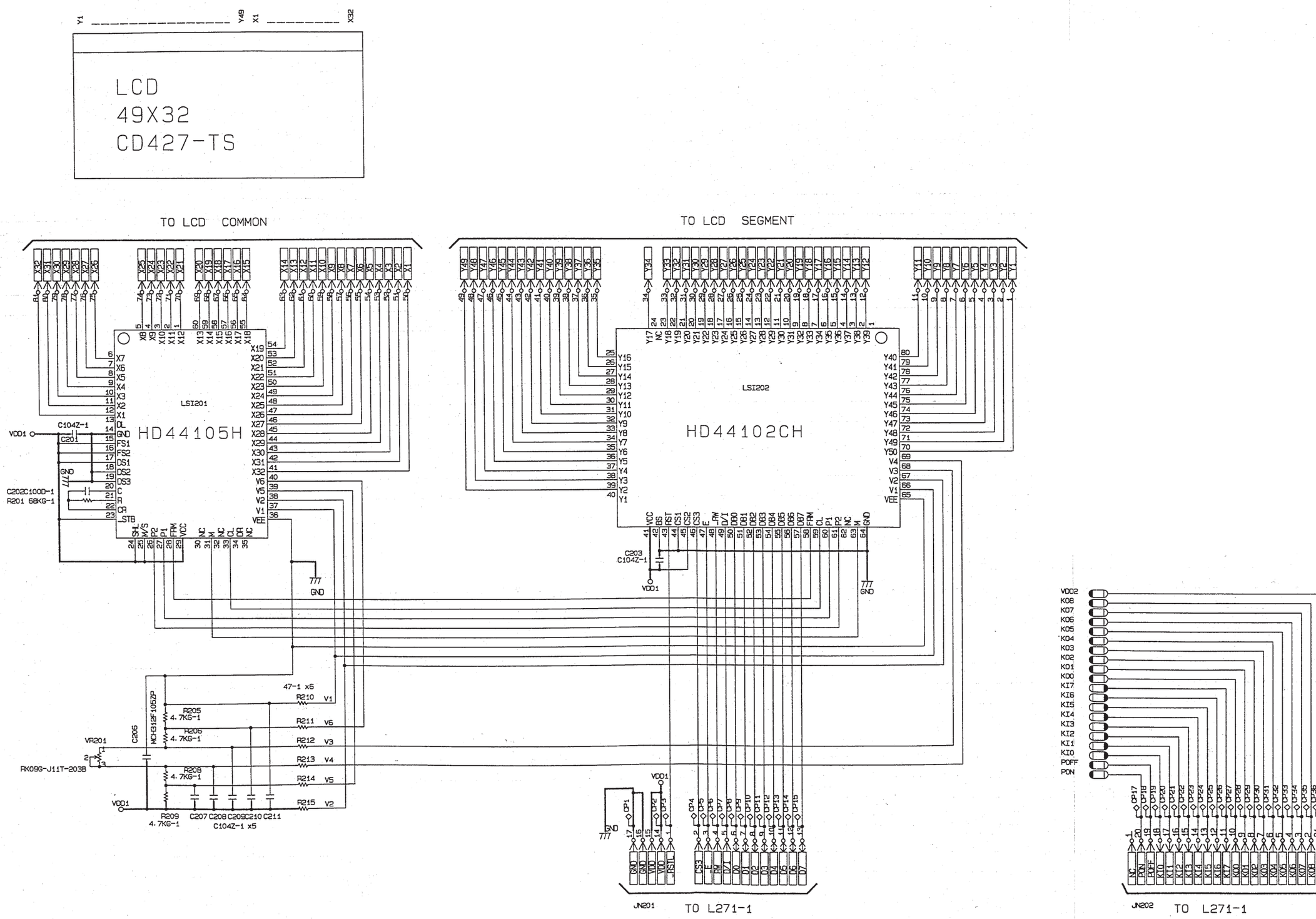


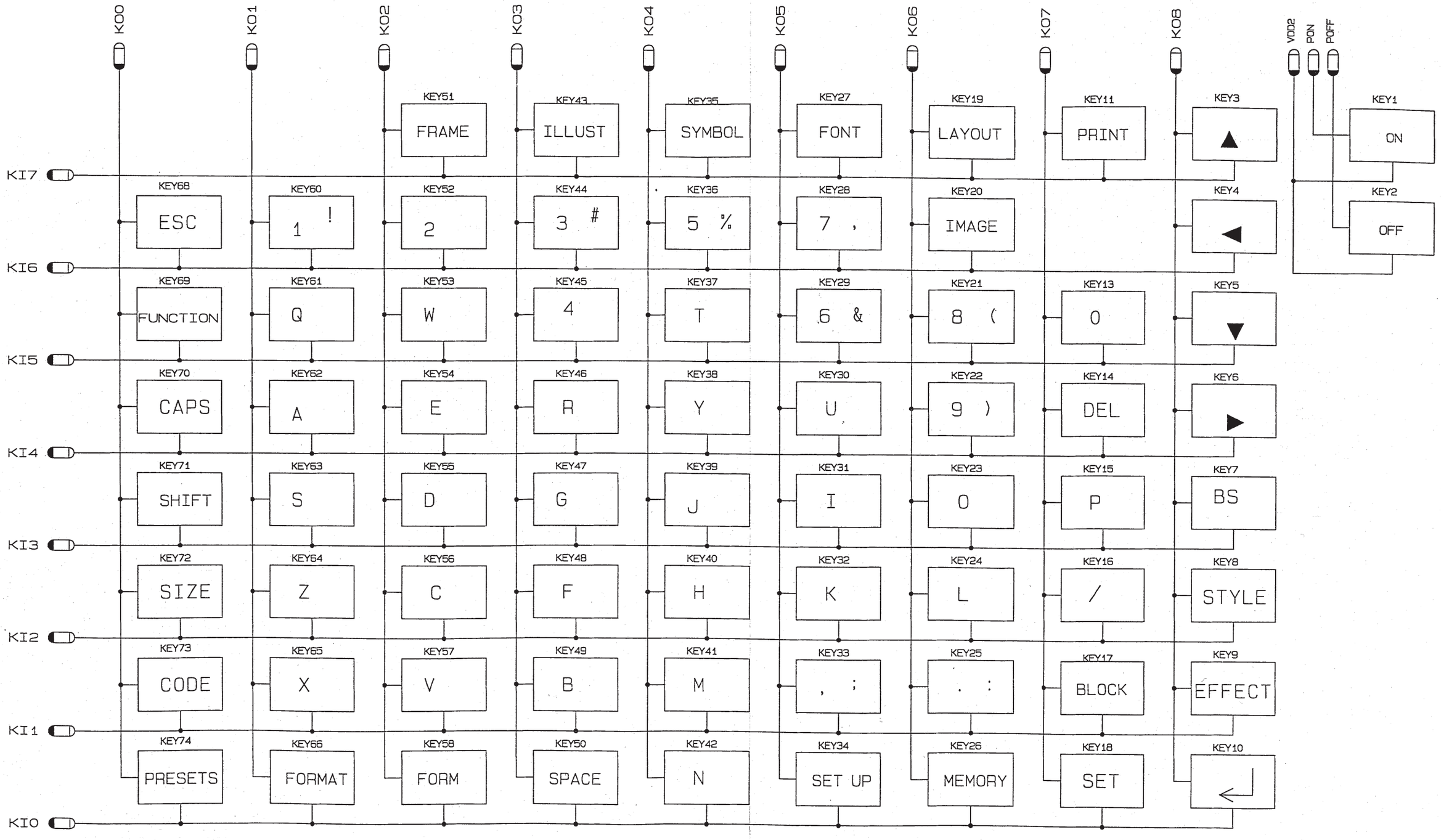


PCB L271-1 (2/2)

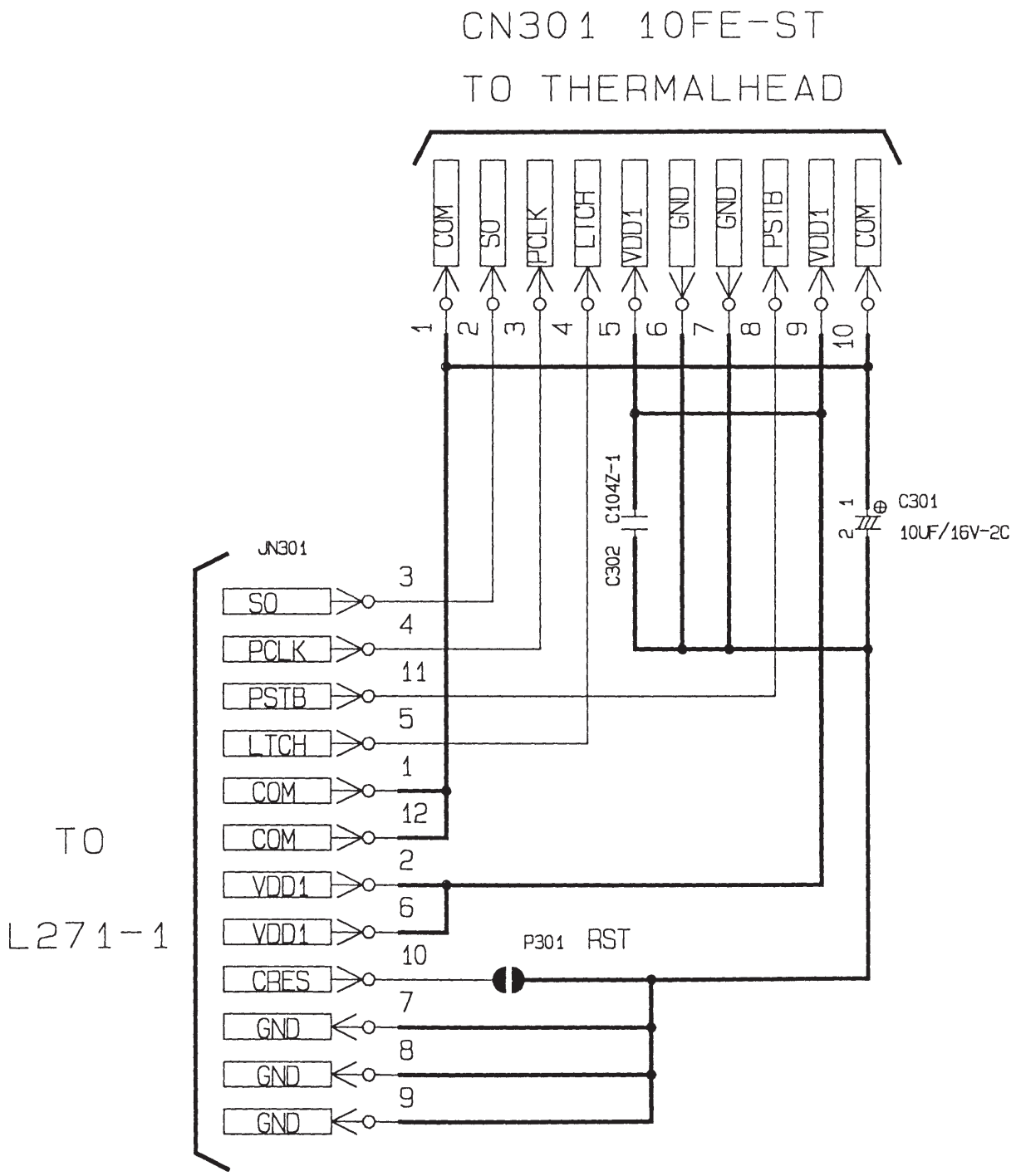

TO L271-E4
TO L271-E4
TO MOTOR
TO L271-2
LSI1
T6C37
TC531001CF-15
CX5664DM-10LL
BA12003
EFO-EC4004A4
EFO-EC4004A4
MMR34J5AJ563 X2
DB[0-7]
AB[0-16]
VDD1
VDD2
GND
VP
BZ1
KBS-150A-5C-22
C38 C471K-1 X2
C23 C102-1 X2
C24
R5 330K-1
R4 330K-1
IC1 RH5VL45AA-T1
C8 C104Z-1
C7 C471K-1
C19 MCH312F105ZP
R34 47K-1
R3 220-1
R10 100-1
R11 100-1
R6 47K-1
R1 47K-1
R2 47K-1
P5 RNK2
P6 RNK1
RA1
RA2
X1
C1 C104Z-1
C3 C104Z-1
C4 C104Z-1
C13 C104Z-1
C10 15RV2-10
R9 2.2K-1
C25 C101K-1 X8
C35 C101K-1
C34 C101K-1
C33 C101K-1
C9 C104Z-1
C11 C104Z-1
CN3 S5B-PH-K-S
JN201
JN202
JN1
MT1
MT2
MT3
MT4
COM
RW
DZT
CS3
RST
P
SCL
SDA
PCLK
LTCH
PSTB
CRES

PCB L271-E4(1/2)




KO0
KO1
KO2
KO3
KO4
KO5
KO6
KO7
KO8
VDD2
PON
POFF
KI7
KI6
KI5
KI4
KI3
KI2
KI1
KI0
KEY51 FRAME
KEY43 ILLUST
KEY35 SYMBOL
KEY27 FONT
KEY19 LAYOUT
KEY11 PRINT
KEY3 ▲
KEY1 ON
KEY68 ESC
KEY60 1 !
KEY52 2
KEY44 3 #
KEY36 5 %
KEY28 7 ,
KEY20 IMAGE
KEY4 ◀
KEY2 OFF
KEY69 FUNCTION
KEY61 Q
KEY53 W
KEY45 4
KEY37 T
KEY29 6 &
KEY21 8 (
KEY13 0
KEY5 ▼
KEY70 CAPS
KEY62 A
KEY54 E
KEY46 R
KEY38 Y
KEY30 U
KEY22 9)
KEY14 DEL
KEY6 ▶
KEY71 SHIFT
KEY63 S
KEY55 D
KEY47 G
KEY39 J
KEY31 I
KEY23 O
KEY15 P
KEY7 BS
KEY72 SIZE
KEY64 Z
KEY56 C
KEY48 F
KEY40 H
KEY32 K
KEY24 L
KEY16 /
KEY8 STYLE
KEY73 CODE
KEY65 X
KEY57 V
KEY49 B
KEY41 M
KEY33 , ;
KEY25 . :
KEY17 BLOCK
KEY9 EFFECT
KEY74 PRESETS
KEY66 FORMAT
KEY58 FORM
KEY50 SPACE
KEY42 N
KEY34 SET UP
KEY26 MEMORY
KEY18 SET
KEY10 ↵

PCB L271-2


CN301 10FE-ST
TO THERMALHEAD
COM
SO
PCLK
LTCH
VDD1
GND
GND
PSTB
VDD1
COM
1
2
3
4
5
6
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8
9
10
C104Z-1
C302
C301
10UF/16V-2C
JN301
SO
PCLK
PSTB
LTCH
COM
COM
VDD1
VDD1
CRES
GND
GND
GND
3
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11
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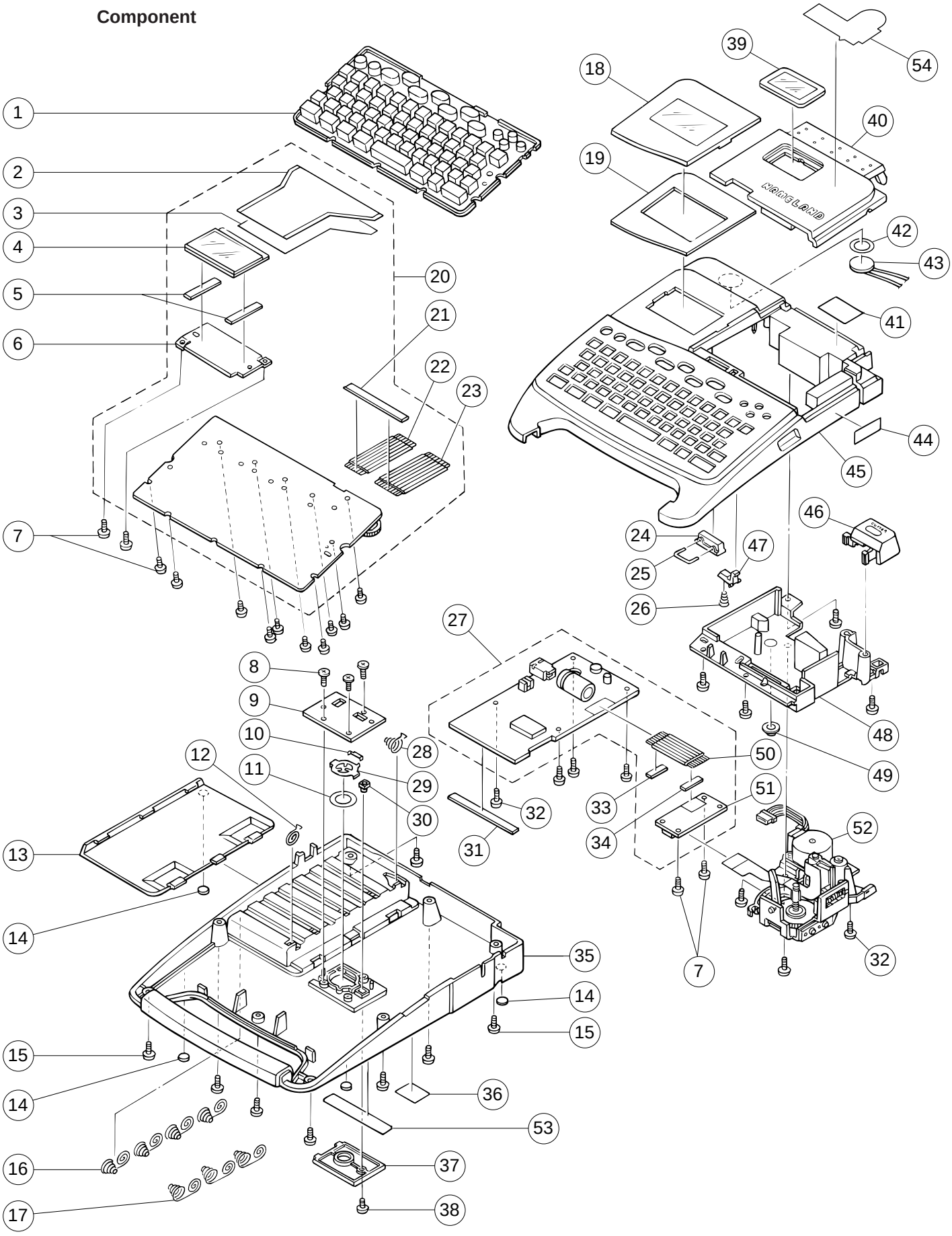
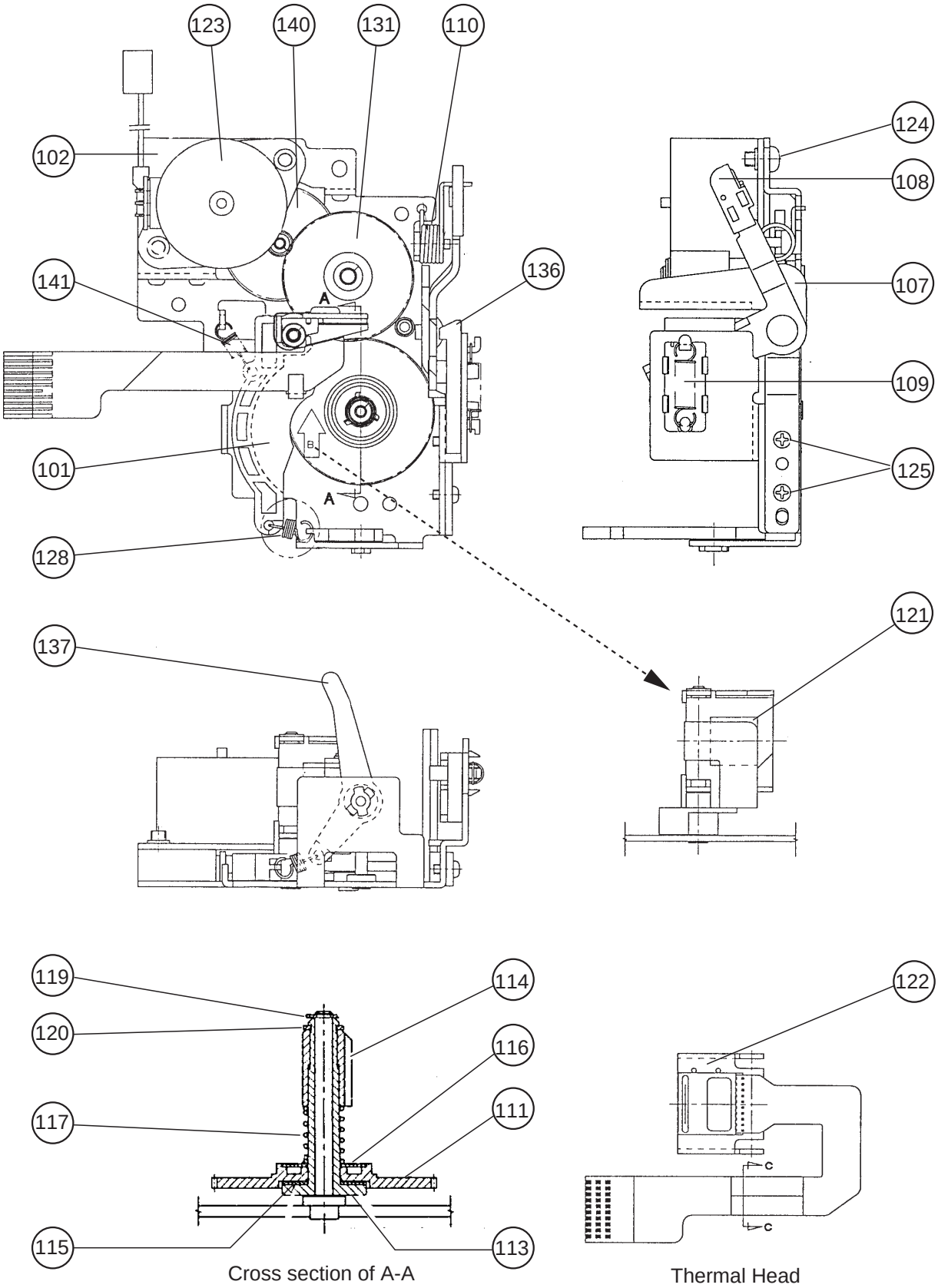
P301 RST
TO
L271-1

EXPLODED VIEW

Component



Chassis ass'y



Cross section of A-A

Thermal Head

BK : BLACK
GY : GREY

PARTS LIST

N	Item	Code No.	Parts Name	Specification	Q'ty BK	Q'ty GY	M	FOB Japan N.R.Yen Unit Price	R
		PCB-1 ASS'Y							
N	33	6410 7080	Adhesive tape C-L263	C413532-1	1	1	20		X
N	34	6410 7080	Adhesive tape C-L263	C413532-1	1	1	20		X
N	50	6410 7011	PC joiner L263	C413507A-1	1	1	10		X
N	51	4311 9470	PCB-L271-2	A340121-1	1	1	5		X
	C1,C3,C4,C8 C9,C11,C13 C14,C15,C17 C37,C22	2845 1540	Chip capacitor	MCH212F104ZK	1	1	20		C
	C10	2803 6155	Chip electrolytic capacitor	16RV2-10-T	1	1	20		C
N	C16	2845 2506	Chip capacitor	MCH215F103ZK	1	1	20		C
	C18	2803 6512	Electrolytic capacitor	16RE3-2200-T4-T	1	1	5		C
	C19	2845 1925	Chip capacitor	MCH312F105ZP	1	1	10		C
	C2,C7,C38	2845 2289	Chip capacitor	MCH215C471KK	1	1	20		C
	C20	2807 6553	Chip electrolytic capacitor	6.3RV2-47-T	1	1	20		C
	C21	2828 5552	Chip electrolytic capacitor	6.3RV2-100-T	1	1	20		C
	C23,C24	2845 2030	Chip capacitor	MCH215C102KK	1	1	20		C
N	C25~C35	2845 4501	Chip capacitor	MCH215SL101KK	1	1	20		C
N	C301	2803 6624	Electrolytic capacitor (PCB-2)	16RC2-10-T14-T	2	2	20		C
	C302	2845 1540	Chip capacitor (PCB-2)	MCH212F104ZK	1	1	20		C
	CN3	3501 6307	Connector	S5B-PH-K-S	1	1	20		C
N	CN301	3501 7770	FPC connector (PCB-2)	10FE-ST	1	1	10		C
N	D1	2390 2226	Chip schottky diode	RB420D-T146	1	1	20		C
N	D2	2390 1827	Diode	MA737- (TX)	1	1	10		C
	D3,D4	2301 2359	Chip diode	MA151K- (TX)	1	1	20		C
	EMI2	3013 0602	Inductor	SBT-0180W	1	1	5		C
N	EMI3	3035 0308	Ferrite beeds	BL01RN1-A63T6	1	1	20		C
	FU1	2114 3227	IC protector	ICP-N25-T104	1	1	10		B
	IC1	2105 2667	CMOS IC	RH5VL45AA-T1	1	1	1		B
	IC2	2114 2436	Monolithic IC	BA12003	1	1	5		B
N	IC3,IC4	2114 3185	Comparator	BA10339F-E1	1	1	10		B
N	IC5	2105 3920	CMOS IC	S-81252PG-PL-T1	1	1	10		B
	J2	3501 5103	AC adaptor jack	HEC3110-01-010	1	1	10		C
N	LSI1	2011 9527	LSI	T6C37	1	1	1		A
N	LSI2	2011 9520	LSI	CXK5864CM-10LL	1	1	1		A
N	LSI3	2011 9513	LSI	TC541000AF-15	1	1	1		A
N	Q2,Q5	2259 0889	Digital transistor	DTC144EKT-96	1	1	20		B
N	Q3	2254 0364	FET	2SJ377 (TE16L)	1	1	1		B
N	Q4,Q6	2251 0742	Chip transistor	2SB1051K-S-T146	1	1	20		B
	R1,R2,R6,R34	2792 0462	Chip resistor	MCR10EZHJ473	1	1	20		C
	R10,R11	2792 0217	Chip resistor	MCR10EZHJ101	1	1	20		C
	R12,R26	2792 0942	Chip resistor	MCR10EZHJ332	1	1	20		C
	R13	2795 1792	Chip resistor	MCR10EZHJ754	1	1	20		C
	R14	2259 0994	Chip resistor	MCR10EZHJ104	1	1	20		C
	R15	2792 0675	Chip resistor	MCR10EZHJ331	1	1	20		C
	R16	1907 6212	Chip resistor	MCR10EZHJ000	1	1	10		C
	R17	2730 0559	Chip resistor	MCR10EZHF3002	1	1	20		C
	R18	2795 1190	Chip resistor	MCR10EZHF1002	1	1	20		C
	R19	2795 1701	Chip resistor	MCR10EZHF1202	1	1	20		C
N	R20,R21	2795 5334	Chip resistor	MCR10EZHF9760	1	1	20		C
N	R22,R23	2795 5341	Chip resistor	MCR10EZHF8660	1	1	20		C
N	R24	2795 5348	Chip resistor	MCR10EZHF7320	1	1	20		C

Notes: N – New parts
M – Minimum order/supply quantity
R – Rank

N	Item	Code No.	Parts Name	Specification	Q'ty		M	FOB Japan N.R.Yen Unit Price	R
					BK	GY			
N	R25	2795 5355	Chip resistor	MCR10EZHF4870	1	1	20		C
	R27~R33	2792 0831	Chip resistor	MCR10EZHJ103	1	1	20		C
	R3	2792 0815	Chip resistor	MCR10EZHJ221	1	1	20		C
	R39	2795 1358	Chip resistor	MCR10EZHJ511	1	1	10		C
	R4,R5	2792 0888	Chip resistor	MCR10EZHJ334	1	1	20		C
N	R7	2792 0532	Chip resistor	MCR10EZHJ105	1	1	20		C
	R8	2730 0547	Chip resistor	MCR10EZHJ124	1	1	20		C
N	R9	2792 1051	Chip resistor	MCR10EZHJ222	1	1	20		C
	RA1,RA2	2775 1372	Chip network resistor	MNR34J5AJ563	1	1	20		C
	VR1	2795 4620	Chip volume	MVR32HXBRN502	1	1	20		C
N	X1	2590 1435	Ceramic oscillator	EFOEC4004A4	1	1	10		C
		L263E-E4 ASS'Y							
N	2	5610 8090	Heat seal L263	C312236-1	1	1	1		B
N	3	6410 7100	Tape A-L263	C413534-1	1	1	20		B
N	4	3335 5502	LCD	CD427-TS	1	1	1		B
N	5	6410 7090	Cushion A-L263	C413533-1	2	2	20		X
N	6	6410 6890	LC holder L263	C312237-1	1	1	10		X
N	21	6410 7070	Adhesive tape B-L263	C413531-1	1	1	20		X
N	22	6413 0050	PC joiner B-L263AEJ	C440133-1	1	1	10		X
N	23	6413 0040	PC joiner A-L263AEJ	C440132-1	1	1	10		X
	C201,C203	2845 1540	Chip capacitor	MCH212F104ZK	1	1	20		C
	C207~C210								
	C202	2845 2212	Chip capacitor	MCH215A100DK	1	1	20		C
	C206	2845 1925	Chip capacitor	MCH312F105ZP	1	1	10		C
	LSI201	2001 7287	LSI	HD44105H	1	1	1		B
	LSI202	2001 7295	LSI	HD44102CH	1	1	1		B
	R201	2795 0826	Chip resistor	MCR10EZHG683	1	1	20		C
	R205,R206	2796 0581	Chip resistor	MCR10EZHG472	1	1	20		C
	R208,R209								
	R210~R215	2792 0807	Chip resistor	MCR10EZHJ470	1	1	20		C
	VR201	2765 0798	Volume	RK09G-J11T-203B	1	1	1		C
		COMPONENT							
N	1	6413 4810	Rubber button L271	C111292-3	1	0	1		X
N	1	6413 6520	Rubber button L271BE	C111292-4	0	1	1		X
N	7	6413 4850	Screw A-L271	A313841-5	14	14	20		X
N	8	6402 6340	Screw A-V465AE	A310044-19	3	3	20		X
N	9	6407 9270	Battery fixing plate L277	A414032-1	1	1	20		X
	10	6396 8870	Battery spring B-L531AA	C310675-1	1	1	20		X
	11	6512 5860	Insulation plate L571AM	C411701-2	1	1	20		X
N	12	6410 6980	Battery spring A-L263	C413502-1	1	1	20		X
N	13	6413 4720	Battery cover L271	C211542-3	1	0	5		C
N	13	6410 7320	Battery cover L282	C211542-2	0	1	5		C
N	14	6408 9950	Rubber foot L277	A414533-1	4	4	20		X
N	15	5041 2318	Screw	2.3 X 6 B	8	8	20		X
	16	6328 1560	Battery spring G49	A44683-1	4	4	10		X
	17	6324 9297	Battery spring C-G164	A43733-1	3	3	10		X
N	18	6413 4740	Display plate A-L271	A340124-1	1	0	1		X
N	18	6413 6450	Display plate A-L271BE	A340124-2	0	1	1		X
N	19	6410 7060	Adhesive tape A-L263	C413530-1	1	1	10		X
N	20	6413 4650	L263E-E4 ass'y	C140032*3A	1	1	1		C
N	24	6413 4820	OP button L271	C312241-3	1	0	20		C
N	24	6410 7360	OP button L282	C312241-2	0	1	20		C
N	25	6410 7140	Hang L263	C413553-1	1	1	20		C
N	26	6410 7110	Spring O P-L263	C413535-1	1	1	20		C

Notes: N – New parts
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N	Item	Code No.	Parts Name	Specification	Q'ty		M	FOB Japan N.R.Yen Unit Price	R
					BK	GY			
N	27	6413 4660	PCB-1 ass'y	A140058*1A	1	1	1		B
N	28	6410 6990	Battery spring B-L263	C413503-1	1	1	20		X
	29	6329 7620	Battery spring A-G272	A33938-1	1	1	10		X
	30	6393 1710	Nut B-V346	A411430-2	1	1	20		X
N	31	6413 0010	Adhesive tape D-L263AEJ	C440140-1	1	1	20		X
	32	5860 0903	Screw	2.3 X 6 ZMC	11	11	20		X
N	35	6413 4860	Lower cabinet L271	C111285-5	1	0	1		X
N	35	6413 6560	Lower cabinet L271BE	C111285-6	0	1	1		X
N	36	6413 4770	Label B-L271	A414747-8	1	0	20		X
N	36	6413 6480	Label B-L271BE	A414747-9	0	1	20		X
N	37	6413 4730	Battery cover B-L271	A313775-8	1	0	10		X
N	37	6410 7220	Battery cover B-L282	A313775-4	0	1	10		X
	38	6400 9580	Screw L240	A412411-1	1	1	20		X
N	39	6413 4750	Display plate B-L271	C413501-3	1	0	10		X
N	39	6410 7390	Display plate B-L282	C413501-2	0	1	10		X
N	40	6413 4710	Cassette cover L271	C211528-3	1	0	1		X
N	40	6413 6420	Cassette cover L271BE	C211528-4	0	1	1		X
N	41	6413 4780	Label C-L271	A414471-3	1	1	20		X
	42	6388 8240	Adhesive tape A-V164	A410562-1	1	1	20		X
N	43	3122 2520	Buzzer	KBS-15DA-5C-22	1	1	10		X
N	44	6413 4760	Label A-L271	A414746-5	1	0	20		X
N	44	6413 6470	Label A-L271BE	A414746-6	0	1	20		X
N	45	6413 4790	Upper cabinet L271	C111298-2	1	0	1		X
N	45	6413 6490	Upper cabinet L271BE	C111298-3	0	1	1		X
N	46	6413 4840	Cassette button L271	C312244-3	1	0	10		X
N	46	6413 6550	Cassette button L271BE	C312244-4	0	1	10		X
N	47	6413 4830	OP hook L271	C312243-3	1	0	10		X
N	47	6410 7370	OP hook L282	C312243-2	0	1	10		X
N	48	6413 4800	Cassette case L271	C111286-3	1	0	5		X
N	48	6410 7260	Cassette case L282	C111286-2	0	1	5		X
	49	6512 5890	Rubber key L571AM	C311028-2	1	1	20		X
N	52	6413 4670	Chassis ass'y	C140015*5A	1	0	1		C
N	52	6413 6510	Chassis ass'y	C140015C*6A	0	1	1		C
	53	6402 9720	FCC label L387	A412826-1	0	1	20		X
N	54	6414 5140	Seal L271	A440616-1	0	1	20		X
	CHASSIS ASS'Y								
N	101	6410 6870	Head arm L263	C211543-1	1	1	5		X
N	102	6413 0060	Chassis sub ass'y	C240092*1	1	1	1		X
N	107	6410 6960	Scissors sub ass'y	C312250*1	1	1	1		B
N	108	6410 7000	Cut plate L263	C413506-1	1	1	10		X
N	109	6410 7120	Spring T-L263	C413536-1	1	1	20		X
N	110	6410 7130	Spring S-L263	C413537-1	1	1	20		X
N	111	6410 2770	Gear B-L278	A313765-1	1	1	20		X
	113	6400 9640	Clutch plate L240	A311853-1	1	1	20		X
	114	6400 9650	Winding gear top L240	A311854-1	1	1	20		X
	115	6400 9710	Clutch felt L240	A412350-1	1	1	20		X
	116	6400 9720	Spring washer L240	A412351-1	1	1	20		X
	117	6400 9730	Clutch spring L240	A412352-1	1	1	20		X
	119	6400 9750	Cut washer B-L240	A412353-2	3	3	20		X
	120	6400 9760	Cut washer C-L240	A412353-3	1	1	20		X
N	121	6405 2850	Adhesive tape L244	A413501-1	1	1	20		X
N	122	1013 8689	Thermal head	KSH64FK-CA	1	1	1		X
	123	3222 0049	Stepping motor	27S1N18ECNU	1	1	1		X
N	124	1909 1944	Screw (+)	M3 X 5 ZMC-3	2	2	20		X

Notes: N – New parts
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N	Item	Code No.	Parts Name	Specification	Q'ty		M	FOB Japan N.R.Yen Unit Price	R
					BK	GY			
	125	1908 6656	Screw (+)	M2 X 4 ZMC-3	2	2	20		X
	128	6400 9780	Head spring A-L240	A412366-1	1	1	20		X
N	131	6410 8091	Platen L263	C312242A-1	1	1	1		X
N	136	6413 4870	Tape fixing plate L271	C312239-3	1	0	20		X
N	136	6413 6570	Tape fixing plate L271BE	C312239-4	0	1	20		X
N	137	6413 4880	SW lever L271	C312240-6	1	0	20		X
N	137	6413 6580	SW lever L271BE	C312240-7	0	1	20		X
N	140	6413 9330	Gear A-L263AE	A340279-1	1	1	10		X
N	141	6413 9340	Head spring B-L263	A440434-1	1	1	20		X

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